

SOME NEMATODES FROM VICTORIAN AND WESTERN AUSTRALIAN MARSUPIALS

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The Victorian material examined was obtained from *Macropus ualabatus* Less. and Garn., *M. ruficollis* Desm., *M. billardieri* Desm., *Potorous tridactylus* Kerr and *Dasyurus maculatus* Kerr, from Gippsland; and from *Macropus giganteus* Zimm., from the Wimmera. Some of it was collected about forty years ago by Mr. A. S. Le Souef, Director of the Sydney Zoological Gardens; that from *Potorous* was taken by Mr. H. H. Finlayson, Honorary Curator of Mammals, South Australian Museum, Adelaide.

The Western Australian specimens were collected from *Macropus melanops* Gould, *M. irma* Jourdan, and *Perameles myosura* Wagner, all from the south-western corner of that State.

Amongst the Victorian material we have recognised seventeen species already known elsewhere; a new genus and species of Trichoneminae; and three species, probably new, assigned to genera (*sensu lato*) because of the absence of males. The Western Australian worms belong to three known species. Seventeen of the species mentioned are members of the Strongylidae, two belong to the Trichostrongylidae, two to the Oxyuroidea, and one to the Filarioidea. Types of the new species are deposited in the South Australian Museum.

In the succeeding part of this paper the localities are indicated as G (Gippsland), W (Wimmera), and W.A. (South-western Australia).

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PHARYNGOSTRONGYLUS Yorke and Maplestone

P. alpha J. & M. — *Macropus giganteus* (W).

P. beta J. & M. — *M. giganteus* (W).

P. delta J. & M. — *M. billardieri* (G), a new host record.

P. epsilon J. & M. — *M. ualabatus* (G); *M. billardieri* (G), a new host record.

P. zeta J. & M. — *M. ruficollis* (G).

P. theta J. & M. — *M. ruficollis* (G), a new host record.

CLOACINA Linstow

C. magnipapillata J. & M. — *M. giganteus* (W).

BUCCOSTRONGYLUS J. & M.

B. buccalis J. & M. — *M. billardieri* (G); *M. ruficollis* (G); both are new host records.

B. setifer J. & M. — *M. ruficollis* (G), new host record.

B. labiatus J. & M. — *M. ruficollis* (G).

ZONIOLAIMUS Cobb

Z. longispicularis (Wood) — *M. giganteus* (W). Females taken from *M. melanops* (W.A.) appear to belong to this species.

Z. ualabatus J. & M. — *M. ualabatus* (G).

Z. clelandi J. & M. — *M. ualabatus* (G).

Z. communis J. & M. — *M. ruficollis* (G); *M. irma* (WA), a new host record.

Z. uncinatus J. & M. — *M. billardieri* (G), a new host record.

PARAZONIOLAIMUS J. & M.

P. collaris J. & M. — *M. ualabatus* (G).

Potorostrongylus finlaysoni n. gen., n sp.

(Figs. 1-4)

From intestine, *Potorous tridactylus* Kerr, southern Gippsland, coll. H. H. Finlayson.

Male about 10 mm., female about 11 mm. long; cuticle behind head inflated, and body narrowed as far back as level of nerve ring. Head with eight large lips; dorsal and ventral largest, each with conical papilla; four submedians next in size, each with rounded papilla; two laterals shortest, each with rounded papilla. Mouth small; buccal capsule small, 11 μ diameter, 10 μ long, with base 26 μ from tip of lips. Oesophagus about 0.75 mm. long; 1:3-4 of body length; suddenly constricted near posterior end and then widening into a terminal bulb. Nerve ring at 0.28 mm., excretory pore at 0.45 mm. from anterior end. Cervical papillae not observed.

Male—Bursa prominent, longer dorsally than ventrally. Ventral rays short, nearly reaching bursal edge; externo-lateral divergent from laterals, short, stout; laterals almost reaching bursal edge, divergent at tips; externo-dorsal arising separately, terminating some distance from edge of bursa. Dorsal ray bifurcating at about one-third length, each branch extending almost to bursal edge and giving off, soon after its origin, a short lateral stem. Spicules 1.25 mm. long, 1:8 of body length, narrow, with striate alae. Gubernaculum present.

Female—Body tapering gradually to narrow, bluntly-pointed tail. Ovejectors 0.33 mm. long; vagina short, wide, 0.3 mm. long; vulva at 1.55 mm. and anus at 0.8 mm. from tip of tail. Eggs 0.08 by .04 mm.

Diagnosis of **Potorostrongylus** n. gen. Trichoneminac. Cervical cuticle inflated. Mouth surrounded by eight large lips; short cylindrical buccal capsule; oesophagus cylindrical, ending in constricted region succeeded by bulb. Male—ventral lobes of bursa continuous with each other; ventral rays parallel; externo-lateral divergent from laterals; externo-dorsal arising separately; dorsal ray bifurcating, each branch giving off a lateral ray. Female—tail tapering, bluntly

pointed; vagina a short distance in front of anus. Type *P. finlaysoni* n. sp. from *Potorous tridactylus* Kerr.

The genus resembles *Zoniolaimus* in the shape of the buccal capsule and in some of the lip characters. The main differences lie in the form of the oesophagus, lip papillae, and the general appearance of the bursa.

TRICHOSTRONGYLUS (s.l.) sp.

A sexually-mature female from the duodenum of *Dasyurus maculatus*. Length 3.3 mm., maximum breadth 0.1 mm. Anterior end rounded, with three shallow lips; buccal capsule absent; oesophagus 0.7 mm., 1:4.7 of body length. Vulva 0.6 mm. and anus 0.25 mm. from posterior end. Tail tapering to blunt point. Eggs 0.03 by .045 mm.

TRICHOSTRONGYLUS (s.l.) sp.

(Fig. 5)

An immature worm from the duodenum of *Dasyurus maculatus*. Length 4.8 mm., maximum breadth 0.15 mm. Anterior end a truncate cone, with six small conical papillae and small, strongly cuticularized mouth. Oesophagus 1 mm. long. Tail 0.1 mm. long, narrowing suddenly behind anal region to a sharp point. The characters of the head and oesophagus suggest a young filarial worm, but the form of the tail and the habitat do not support such a view.

DIPETALONEMA ROEMERI (Linstow)

Found in *Macropus giganteus*, Wimmera district.

SUBULURA PERAMELIS Baylis

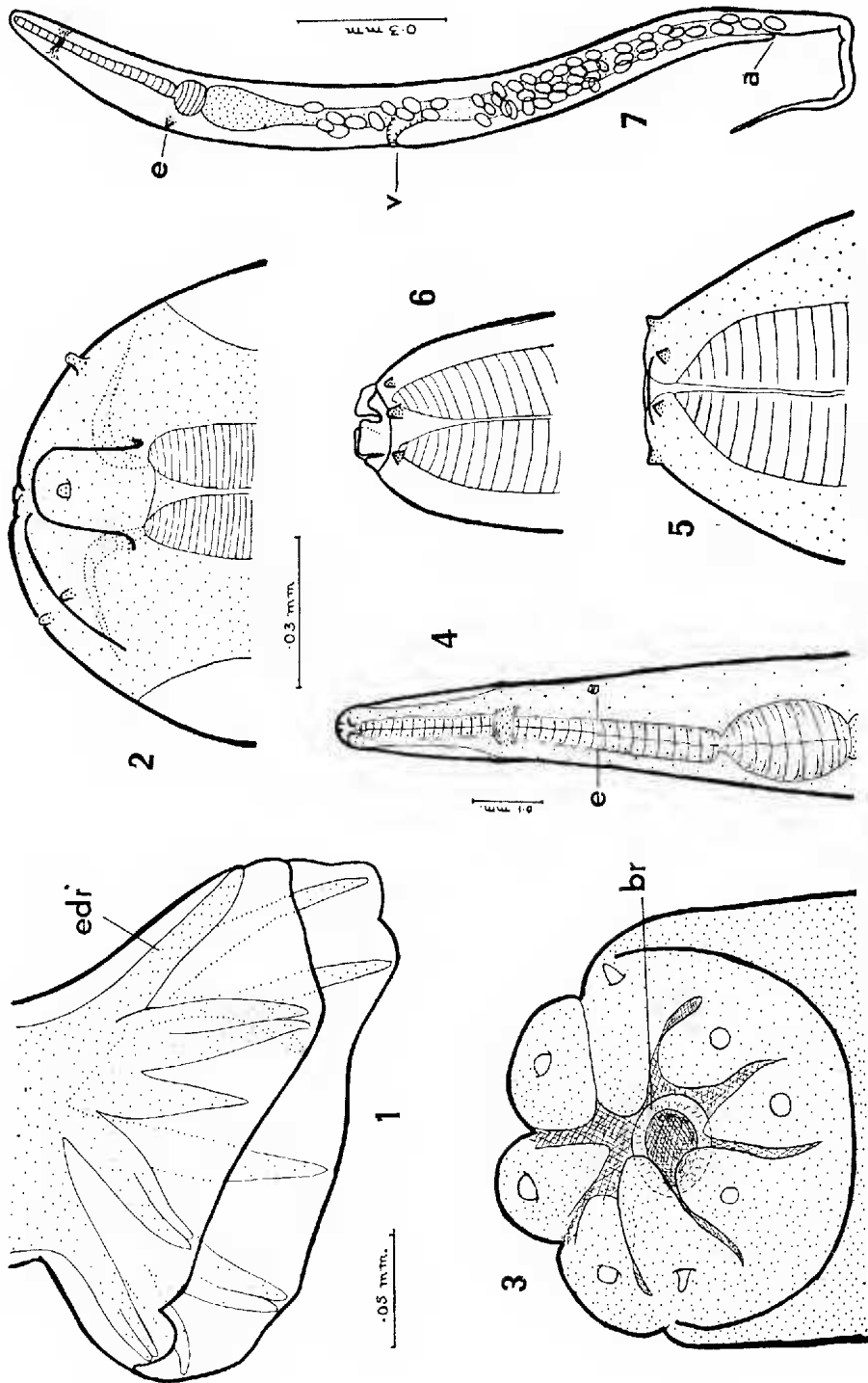
Specimens from a Western Australian bandicoot, *Perameles myosura*, agreed with the original account, except that the lips were slightly longer and the buccal capsule a little deeper.

Oxyuris (s.l.) **potoroo** n. sp.

(Figs. 6-7)

Females from intestine of *Potorous tridactylus*, southern Gippsland, coll. H. H. Finlayson. Length about 2 mm.; maximum breadth, 0.12 mm. Head with three large lips alternating with three smaller; a pair of lateral and two pairs of smaller submedian papillae arranged in a ring just behind base of lips. Buccal capsule absent. Oesophagus 0.4 mm. long, narrow, with terminal bulb .08 mm. wide and .07 mm. long. Nerve ring .01 mm. and excretory pore at 0.36 mm. from anterior end of worm. Anterior part of intestine wider than remainder. Long tail tapering to become threadlike. Anus at 0.5 mm. from tip of tail. Vulva at 0.8-0.9 mm. from head end; i.e., at 1:2.3-2.6 of body length. Eggs 45-50 μ by 20-25 μ .

In the absence of males, the species cannot be assigned more definitely to any Oxyurid genus. It differs from any species hitherto described from marsupials in the absence of a buccal capsule and of cervical inflation, as well as in the arrangement of the lips. The specific name is the aboriginal name for the small rat kangaroo.



Figs. 1-4—*Potorostrongylus fulaysoni*: 1, bursa; 2, head; 3, head, anterior; 4, oesophagus.

Fig. 5—*Trichostrongylus* (s.l.) sp., head. Figs. 6-7—*Oxyuris* (s.l.) *potoroo*: 6, head; 7, entire worm.

Figs. 2, 3, 5 and 6 drawn to same scale. a, anus; br, buccal ring; e, excretory pore; edr, externo-dorsal ray; v, vulva